Dungeness/ Elwha Watershed - WRIA 18

This watershed is somewhat unique in that it is a west side stream with numerous gravity diversions for irrigated agriculture, similar to many streams of eastern Washington. This watershed is also unique in that it supports one of the most diverse assemblages of salmonid stocks in the state. IFIM models indicate that even relatively small increases in instream flow could result in significant benefit to salmonids, particularly rearing habitat for chinook. In addition to the agreement between resource agencies and irrigation districts regarding instream flows and diversions, there are other opportunities to increase flow through additional acquisition of water.

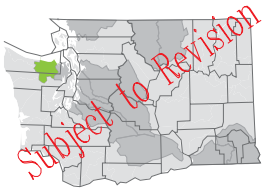
Due to the significant continuity between the groundwater and surface water in this basin, it is suspected that the 3500+ ground water rights may be resulting in significant surface water impacts. Existing water rights significantly exceed available surface flows in the mainstem during the summer and fall months. Low flow adversely affects rearing and spawning habitat, as well as adult salmonid migration during late summer and fall. Due to the high porosity of the substrata there may be opportunity to conserve water through conservation efforts to reduce conveyance losses of the open ditch delivery systems.

Morse Creek is a moderate sized creek located between the Dungeness and Elwha Rivers and is known to have one produced a surprising diversity of salmonids stocks for a stream of it's size. There is a City diversion at RM 7.0 which could result in limiting flows during late summer months if the right is fully appropriated. Up to 19CFS could be diverted by the City of Port Angeles. Total surface rights are 24cfs with numerous additional claims. Sufficient water should be sought to secure sufficient future instream flow needs for fish.

The Elwha River is one of the largest and perhaps historically the most productive salmonid stream of the Olympic Peninsula. This river historically produced a great diversity of salmonid stocks including perhaps some of the largest chinook in the state. The average minimum flow in the Elwha is 350cfs, while surface withdrawals may total 215cfs. Although full appropriation of water is rarely exercised, up to 50 percent of the stream flow has been diverted. Flows below 300cfs can result in significant impacts to rearing salmonids, and low summer flows can result in elevated stream temperatures and increased incidence of disease in chinook. The primary water user is the City of Port Angeles, which has rights to 150cfs.

Bell Creek is a small tributary located near the mouth of Sequim Bay. A diversion just upstream of Carrie Lake Park diverts up to 50 percent of the stream flow. As with other small tributaries in the Dungeness plain, flows are further compromised by conservation efforts on gravity diversions from the Dungeness River, due to interconnected sub-surface hyphoreic flow with the Dungeness.

Stream Flow Prioritization: Elwha/Dungeness WRIA 18



- US Forest Service
- US Wildlife Refuge
- US Parks/Recreation
- USFS Wilderness Area
- Bureau of Land Management
- US Dept. Defense/Energy
- Wa. Dept. of Fish & Wildlife
- Wa. Dept. of Naural Reasources
- State School/Hospital/Prison
- Wa. Parks & Recreation
- City/County Watershed/Park
- Tribal Lands
- Incorporated City

- Low priority stream
- Medium priority stream
- High priority stream
- Salmon/Bull Trout Spawning/Rearing area
- Other streams
- Canal/ditch/pipe

- USGS Stream Flow Gage
- Ecology Stream Flow Gage
- Water Right Purchase

- County
- Highway
- Local Paved Roads

WDNR/Ecology - Major Public Lands 2002 100k
WDFW/Ecology - Hydrography, 2000 100k
Ecology - WRIA, 2002 24K
WDOT - Transportation, 2001 24K
WDFW - Stream Flow Prioritization 2002
WDFW - Spawning/Rearing Areas 2002 100k
USGS/Ecology - Stream Gages 1:100k

Miles
0 2.5 5

Water Resources Program

WASHINGTON STATE DEPARTMENT OF ECOLOGY

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